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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,813	11/02/2001	Isao Kanno	FS.17315US0A	7362

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EXAMINER

ELKASSABGI, HEBA

ART UNIT PAPER NUMBER

2834

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/015,813

Applicant(s)

KANNO, ISAO

Examiner

Heba Elkassabgi

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1 is/are allowed.
- 6) ☒ Claim(s) 2-9 is/are rejected.
- 7) ☒ Claim(s) 1 and 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. In Claim #1 the rotor coupled to the crankshaft having magnets that are rotatably mounted in juxtaposition with the stator armature. In Claim 2 the rotor having a plurality of permanent magnets rotatably mounted in juxtaposition with the stator armature. In Claim 9 The electrical generator that is mounted on the engine located at one end of the crankshaft. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

### ***Claim Rejections - 35 USC § 112***

Claims 1,2, and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1,2, and 3 recite the limitation "heat conductive plate abutted against one of said plates. ". There is insufficient antecedent basis for this limitation in the claim, it needs to be clearly stated as to which of the plates that the applicant is claiming.

### ***Claim Objections***

Claim1 is objected to because of the following informalities: Paragraph 4 section (ii), line 2 the heat conductive plates needs to be corrected to heat conductive plate

since it is understood by the examiner that there is only one heat conductive plate.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (U.S. Patent 6455976 B1) and further in view of Isogawa (U.S. Patent 5159916).

Nakano illustrates in Figures 2, 4, and 7 a stator armature (12) having a series of stacked plates (cores)(11), with a heat conductive plate (retaining plate)(18) abutting against stator plate (core)(11). The armature coil (stator coil)(16) is wound around the assembly of the stacked plates (cores)(11) of magnetic permeability so that the heat conductive plate (retaining plate)(18) is an integral part of the stator armature (12). However, prior art does not disclose a rotor with a plurality of magnets and in juxtaposition of the stator.

Isogawa illustrates in Figure 3 a flywheel rotor (27) that is attached to a crankshaft (17) having magnets (29) that are mounted in juxtaposition with the stator armature (35), in order to trigger the ignition circuit.

It would have been obvious to one of ordinary skill in the art to combine Nakano with the flywheel with magnets of Isogawa to trigger the ignition circuit.

Claim 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (U.S. Patent 6455976) and further in view of In re Leshin.

Nakano illustrates in Figures 2,4, and 7 a stator armature (12) having a series of stacked plates (cores)(11), with a heat conductive plate (retaining plate)(18) abutting against stator plate (core)(11). The armature coil (stator soil)((16) is wound around the assembly of the stacked plates (cores)(11) of magnetic permeability so that the heat conductive plate (retaining plate)(18) is an integral part of the stator armature (12). However, Nakano does not disclose a material choice of the heat plate, stator bracket, and stacked plates.

Nakano discloses the claimed invention except for the material choice of the stator bracket, stacked plates, and heat plate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the heat conductive plate to be of aluminum or of thermal conductivity equal to or greater to that of aluminum and the stator bracket to be formed of aluminum; since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 25 USPQ.

It would have been obvious to one of ordinary skill in the art to combine Nakano with In re Leshin in order to choose a suitable material for intended use as a matter of design choice.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (U.S. Patent 6455976 B1) and further in view of Minowa (U.S. Patent 3694661) and Isogawa (U.S. Patent 5159916).

Nakano discloses in Figures 2,4, and 7 a series of uniformly spaced radially extended armature legs (stator cores)(12,11) attached to a similar shaped plat (retaining plate)(18). However Nakano does not disclose a flywheel rotor or an electric generator mounted to an engine.

Minowa discloses in Figure 3 an electrical generator mounted on an engine block (2) located at one end of the crankshaft (12) with a stator leg (AA), in order to for the rotation of the engine to drive the generator.

Isogawa illustrates in Figure 3 a flywheel rotor (27) that is attached to a crankshaft (17) having magnets (29), in order to trigger the ignition circuit.

It would have been obvious to one of ordinary skill in the art to combine Nakano with the electrical generator of Minowa in order to rotate the engine to drive the generator and the flywheel with magnets of Isogawa to trigger the ignition circuit.

***Allowable Subject Matter***

Claim 1 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action. Prior Art does not disclose a stator bracket that is directly attached to the engine block and conductive plate being integral with the stator armature.

Claim 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior Art does not disclose an armature leg and plate being mounted to the stator bracket. And the heat induced directly dissipating through the plate to the stator bracket.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HYE  
December 25, 2002

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800